

Date: Fri, 1 Jul 94 17:35:00 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #731
To: Info-Hams

Info-Hams Digest Fri, 1 Jul 94 Volume 94 : Issue 731

Today's Topics:

 AEA IsoLoop - Opinion
 Best dual-band HT antenna
 Call-Sign Prefixes (3 msgs)
 FIELD DAY 1994 REPORT
 IC229H
 IPS Daily Report - 01 July 94
 Newbie license question -- change of address
 Re:Call-Sign Prefixes
 Temp. Conversion Chart: F & C?
 Test-to-license-in-hand time
 Waiting for License? Wait some more.
 Where is the best place to install a low pass filter?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 1 Jul 1994 19:15:08 GMT
From: ihnp4.ucsd.edu!sdd.hp.com!col.hp.com!srngenprp!alanb@network.ucsd.edu
Subject: AEA IsoLoop - Opinion
To: info-hams@ucsd.edu

David Stockton (dstock@hpmqoca.sqf.hp.com) wrote:
: Alan Bloom (alanb@hpnmarb.sr.hp.com) wrote:

: : The laws of physics show no such thing. It is theoretically possible
: : for a small loop to be 100% efficient. It's true that it's hard to
: : approach that ideal in practice, but the IsoLoop comes impressively

: : close.

: ... 100% efficiency can be approached, and the result on transmit is
: easily understood; all the watts you stuff up the cable get radiated.
: On receive, it is possible to get different levels of output from
: different 100% efficient, perfect, lossless antennae. The difference is
: in the effective capture area of different designs. ...

I can't tell for sure from the above quote whether you made the famous
antenna aperture mistake or not. Please forgive me if the following is
something you already know:

"Two antennas of equal gain have the same aperture."

For example, a dipole has an aperture of approximately $1/8$ square
wavelength. A small 100%-efficient loop antenna has only slightly less
aperture (i.e. almost the same gain) no matter how physically small the
loop is. It seems counter-intuitive that a loop with an area of
 $1/500$ square wavelength can have approximately the same aperture as a
full-sized half-wave dipole, but it's a fact.

Having said that, let me admit that in real life, 100%-efficient
small loop antennas can be devilishly difficult to build. The radiation
resistance of a small loop is proportional to the square of the loop
area, which is proportional to the square of the diameter. So the
radiation resistance is proportional to the FOURTH POWER of the loop
diameter. For example, a 1-meter loop on the 20 meter band has a
radiation resistance on the order of .04 ohms (as I recall). If the
loop's loss resistance is a tenth of an ohm, then the antenna
efficiency is only 29% (-5.4 dB).

AEA did a couple clever things to overcome efficiency problems in the
Isoloop. One was to use a single loop coupling, which eliminates lossy
matching coils or transformers. The other was to use a split-stator
capacitor, which removes the need to run high circulating currents
through a sliding contact. I noticed that the person who designed the
QST article's Isoloop clone missed that subtlety in the design.

AL N1AL

Date: 29 Jun 94 15:43:40 EDT

From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!ceylon!
sundog.tiac.net!usenet.elf.com!rpi!psinnntp!main03!landisj@network.ucsd.edu

Subject: Best dual-band HT antenna

To: info-hams@ucsd.edu

In article <Cs4DpA.MEq@cup.hp.com>, stefanis@ptp.hp.com (Nick Stefanisko) writes:
> I have a Comet CH-72S, it is much better than the duck I got with my IC24at.
> But it seems to work about the same as the one I got with my FT-530(Yaesu).
> The one bad thing about the Comet is that it is 15inches long. They say
The stock Yaesu duck (YHA28) on my FT470 works well too. About the same as an
Anli dual band duck that I had bought before. The Yaesu's about 8" but the
Anli's about 15" too. FYI, even IN a car they both work much better than an
MFJ dual band mag-mount mobile dummy load on the roof!

Joe - AA3GN

--

Joe Landis - System & Network Mgr. - North American Drager Co. Telford, PA
landisj@drager.com | uupsi5!main03!landisj | AA3GN@WB3JOE.#EPA.PA.USA
Opinions are mine only, and do not reflect those of my employer.

Date: 1 Jul 1994 18:56:54 GMT
From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!math.ohio-state.edu!magnus.acs.ohio-
state.edu!aalettras@network.ucsd.edu
Subject: Call-Sign Prefixes
To: info-hams@ucsd.edu

> I am going to be travelling through the U.S. this summer, and I
> already posted a message asking whether my Canadian Amateur license is good
> in the U.S. as well, to which the answer was Yes. Apparently I have to
> identify myself with my callsign followed by the prefix followed by "\ <and
> then the prefix of the area that I'm in" How do I know what the prefix
> should be? The ARRL handbook just says that the U.S. callsign prefixes are
> between "WAA-WZZ"!

> Graham
>

I have been in OHIO for 3 years and I have been identifying myself as
N8/SV2ABQ

It could have easily been W8/SV2ABQ or K8/SV2ABQ !!!
(As courtesy to the country you are visiting you precede your
callsign with its prefix)

anthony N8/SV2ABQ
aletras.2@osu.edu

Date: 1 Jul 1994 19:07:07 GMT
From: ihnp4.ucsd.edu!agate!cat.cis.Brown.EDU!NewsWatcher!user@network.ucsd.edu
Subject: Call-Sign Prefixes
To: info-hams@ucsd.edu

In article <48038@mindlink.bc.ca>, Graham_Butler@mindlink.bc.ca (Graham Butler) wrote:

> I am going to be travelling through the U.S. this summer, and I
> already posted a message asking whether my Canadian Amateur license is good
> in the U.S. as well, to which the answer was Yes. Apparently I have to
> identify myself with my callsign followed by the prefix followed by "\ <and
> then the prefix of the area that I'm in" How do I know what the prefix
> should be? The ARRL handbook just says that the U.S. callsign prefixes are
> between "WAA-WZZ"!

>

Graham

Every year we have a visitor from the UK and he always signs as G3YWI/W1 or
G3YWI STROKE WHISKEY ONE. I have a feeling you might use the same although
you'll be moving from call region to call region. Check with the folks at
the ARRL.

****DISCLAIMER**** Even though I disagree with some of the ARRL's policies
they, on some occasions, do provide admirable service to amateurs.

--

== Tony Pelliccio, KD1NR

== Anthony_Pelliccio@brown.edu, Tel. (401) 863-1880 Fax. (401) 863-2269

== The opinions above are my own and not those of my employer.

Date: 1 Jul 1994 19:42:46 GMT

From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!news.umbc.edu!
haven.umd.edu!cville-srv.wam.umd.edu!ham@network.ucsd.edu

Subject: Call-Sign Prefixes

To: info-hams@ucsd.edu

In article <Anthony_Pelliccio-010794150655@138.16.64.44>,

Tony Pelliccio <Anthony_Pelliccio@brown.edu> wrote:

>In article <48038@mindlink.bc.ca>, Graham_Butler@mindlink.bc.ca (Graham
>Butler) wrote:

>

>> I am going to be travelling through the U.S. this summer, and I
>> already posted a message asking whether my Canadian Amateur license is good
>> in the U.S. as well, to which the answer was Yes. Apparently I have to
>> identify myself with my callsign followed by the prefix followed by "\ <and
>> then the prefix of the area that I'm in" How do I know what the prefix
>> should be? The ARRL handbook just says that the U.S. callsign prefixes are
>> between "WAA-WZZ"!

>>

Graham

>

>Day using 5A with a Novice/Tech + and OSCAR (145MHz and 430MHz) and we had
>terrible interference between the HF rigs-- if you were monitoring on one
>band and another station keyed up, you heard "CQ Field Day" from the
>nearby transceiver that would swamp out any other signal you were trying to
>receive.

W3QV, 9A, Eastern PA.

N3IEI was the one primarily responsible for running the show.

Well, we were at the antenna site for all the commercial TV stations in the Philly area. Surprisingly, we did not have trouble with interference with their HIGH power transmissions. AS for interference between ham stations, we were in the middle of a field so were able to spread out a bit. Some antennas were strung out on the TV station towers. Others used their own stand alone masts. A cherry picker was available to string up on trees. Due to the ability to spread out all over the place and the ability to place antennas wherever we wished, there were no interference problems.

It helps when one of the guys running Field Day is the network's VP in charge of engineering :) Using company equipment was no problem (i.e., toilet facilities, emergency generators, towers). I got a great tour of the NBC (? Channel 3, Philadelphia) transmission facilities to boot!

--

Medical Image Processing Group		73 de Conway Yee, N2JWQ
411 Blockley Hall		EMAIL : yee@mipg.upenn.edu
423 Guardian Drive		TELEPHONE : 1 (215) 662-6780
Philadelphia, PA 19104-6021 (USA)		FAX : 1 (215) 898-9145

Date: Fri, 01 Jul 94 14:33:16 -0700 (PDT)
From: ihnp4.ucsd.edu!library.ucla.edu!agate!deep.rsoft.bc.ca!mindlink.bc.ca!
a76@network.ucsd.edu
Subject: IC229H
To: info-hams@ucsd.edu

Hi...

I'm wondering if anybody can help me with this problem that I'm having with my IC-229H... For some odd reason every few days, with the radio turned off, the memory in the radio is dumped, I've had the backup battery changed already so it couldn't be that. I don't know if this is a common problem or not, but if anybody knows what could be wrong please leave me a message, thanks. 73

Sam_Oben@mindlink.bc.ca

or
Cabot@shoreline.
ca

Date: Fri, 1 Jul 1994 23:17:49 GMT
From: ihnp4.ucsd.edu!agate!msuinfo!harbinger.cc.monash.edu.au!news.cs.su.oz.au!
metro!ipso!rwc@network.ucsd.edu
Subject: IPS Daily Report - 01 July 94
To: info-hams@ucsd.edu

SUBJ: IPS DAILY SOLAR AND GEOPHYSICAL REPORT
ISSUED AT 1/2330Z JULY 1994 BY IPS RADIO AND SPACE SERVICES
FROM THE REGIONAL WARNING CENTRE (RWC), SYDNEY.
SUMMARY FOR 1 JULY AND FORECAST UP TO 4 JULY

IPS Disturbance Warning 17 was issued on 22 June and is current for
interval 24 June to 4 July

1A. SOLAR SUMMARY
Activity: moderate

Flares: none.

Observed 10.7 cm flux/Equivalent Sunspot Number : 087/030

GOES satellite data for 30 June
Daily Proton Fluence >1 MeV: 2.7E+06
Daily Proton Fluence >10 MeV: 6.2E+04
Daily Electron Fluence >2 MeV: 4.8E+08
X-ray background: A7.8
Fluence (flux accumulation over 24hrs)/ cm2-ster-day.

1B. SOLAR FORECAST

	02 July	03 July	04 July
Activity	Low	Low	Low
Fadeouts	None expected	None expected	None expected

Forecast 10.7 cm flux/Equivalent Sunspot Number : 089/033

1C. SOLAR COMMENT
None.

2A. MAGNETIC SUMMARY
Geomagnetic field at Learmonth: quiet to active

Estimated Indices : A K Observed A Index 30 June

Learmonth	22	4444 2244	
Fredericksburg	17		17
Planetary	18		17

Observed Kp for 30 June: 3444 3333

2B. MAGNETIC FORECAST

DATE	Ap	CONDITIONS
02 Jul	15	Unsettled to active.
03 Jul	20	Unsettled to active.
04 Jul	15	Unsettled to active.

2C. MAGNETIC COMMENT

No significant effect is expected from the M2 flare that occurred late on 30 June.

3A. GLOBAL HF PROPAGATION SUMMARY

DATE	LATITUDE BAND		
	LOW	MIDDLE	HIGH
01 Jul	fair-normal	fair	poor-normal

PCA Event : None.

3B. GLOBAL HF PROPAGATION FORECAST

DATE	LATITUDE BAND		
	LOW	MIDDLE	HIGH
02 Jul	normal	fair-normal	poor-fair
03 Jul	normal	fair-normal	poor-fair
04 Jul	normal	fair-normal	poor-fair

3C. GLOBAL HF PROPAGATION COMMENT

Geomagnetic activity continues to degrade propagation conditions at mid and high lats.

4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY

MUFs at Sydney were near predicted monthly values during local daylight hours, and 15-40% enhanced during local night.

Observed T index for 01 July: 39

Predicted Monthly T Index for July is 30.

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE	T-index	MUFs
02 Jul	25	Near predicted monthly values.
03 Jul	30	Near predicted monthly values.
04 Jul	30	Near predicted monthly values.

4C. AUSTRALIAN REGION COMMENT

Regular Sporadic E layer and Spread F may have degraded local propagations conditions yesterday. Similar conditions are expected for today.

--

IPS Regional Warning Centre, Sydney	IPS Radio and Space Services
email: rwc@ips.oz.au fax: +61 2 4148331	PO Box 5606
RWC Duty Forecaster tel: +61 2 4148329	West Chatswood NSW 2057
Recorded Message tel: +61 2 4148330	AUSTRALIA

Date: 1 Jul 1994 18:54:03 GMT
From: ihnp4.ucsd.edu!sdd.hp.com!hpscit.sc.hp.com!icon!hpchase.rose.hp.com!
cmoore@network.ucsd.edu
Subject: Newbie license question -- change of address
To: info-hams@ucsd.edu

Freeman A. Kilpatrick (fkilpatr@afit.af.mil) wrote:
: I recently took my tech exam (May 16), and I'm now waiting the long
: four months for my license. However, I moved this week, and I'm not
: sure if I should file a change of address with the FCC, or if I
: should just wait for the normal Post Office forwarding. Can anyone
: give me any guidance?

This is only a partial answer to your question. You should definitely file a change of address with the FCC by filling out another Form 610 and mark the change of address box. You should do this anytime you move.

However, you have a unique situation in that you don't actually have a license yet, so you have to figure out what to do about getting your initial license. My guess is that the post office forwarding should take care of it - you might want to check with the post office about how long the forwarding is in effect. Then, once you get your callsign, file the form 610 to let the FCC know where you've moved to.

Chris Moore
N6IYS
cmoore@cancun.rose.hp.com

Date: 01 Jul 1994 19:26:57 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!ceylon!news2.near.net!
info-server.bbn.com!news!levin@network.ucsd.edu
Subject: Re:Call-Sign Prefixes
To: info-hams@ucsd.edu

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>
>                          Apparently I have to
>identify myself with my callsign followed by the prefix followed by "\ <and
>then the prefix of the area that I'm in" How do I know what the prefix
>should be?
```

It could have easily been W8/SV2AB0 or K8/SV2AB0 !!!

(As courtesy to the country you are visiting you precede your
callsign with its prefix)

/JBL

```
Nets: levin@bbn.com | "Oops."
pots: (617)873-3463 |
ARS: KD10N |
```

-- Lothos

From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!ceylon!
sundog.tiac.net!usenet.elf.com!rpi!psinntp!main03!landisj@network.ucsd.edu
Subject: Temp. Conversion Chart: F & C?
To: info-hams@ucsd.edu

```
> Heh, heh, an even easier way to solve the whole problem would be for
> us Americans to just drop F, then there would be no need for conversions.
> (Easy for me to say--I was trained as a chemist.  What the heck is
> degrees F??  ;-)  Does anyone in the world besides us use F??
```

 γ

> 73, K7ITM

 \succ

Maybe the world ought to drop C and adopt F. :-) :-) :-)

— —

Joe Landis - System & Network Mgr. - North American Drager Co. Telford, PA

landisj@drager.com | uupsi5!main03!landisj | AA3GN@WB3JOE.#EPA.PA.USA
Opinions are mine only, and do not reflect those of my employer.

Date: 1 Jul 1994 23:49:04 GMT
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!vixen.cso.uiuc.edu!
prairienet.org!dhughes@network.ucsd.edu
Subject: Test-to-license-in-hand time
To: info-hams@ucsd.edu

Passed technician test: March 20

Call issued: June 21

License mailed: June 27

License received: July 1

I live in Urbana, IL--not a 4-day trip from PA....

---Dan, N9XDK

--

Date: 1 Jul 1994 17:37:03 -0400
From: ihnp4.ucsd.edu!swrinde!gatech!howland.reston.ans.net!news.ans.net!
newstf01.cr1.aol.com!search01.news.aol.com!not-for-mail@network.ucsd.edu
Subject: Waiting for License? Wait some more.
To: info-hams@ucsd.edu

It took me ten weeks to the day from when I passed my test until I
received my license. It was tough waiting all those weeks.

Warren Whitby
KE4ITL

Date: 1 Jul 1994 19:40:03 GMT
From: ihnp4.ucsd.edu!usc!nic-nac.CSU.net!charnel.ecst.csuchico.edu!
yeshua.marcam.com!news.kei.com!ssd.intel.com!chnews!scorpion.ch.intel.com!
jbromley@network.ucsd.edu
Subject: Where is the best place to install a low pass filter?
To: info-hams@ucsd.edu

tom_boza@ccm.hf.intel.com (Tom Boza, WB7ASR) writes:

>>Can someone tell me where the best place is to install my
>>Drake 1KW low pass filter?

- >> 1) Between my HF transceiver and my 1KW RF amp
- >> 2) Between my 1 KW RF amp and my 1KW antenna tuner
- >> 3) Between my 1KW antenna tuner and my antenna
- >> 4) Sell it at the next ham fest
- >> 5) Anywhere after the transceiver

In article <2v1jcu\$j87@hammer.msfc.nasa.gov>,
Herb Sims, KU0C <sims@sauron.msfc.nasa.gov> wrote:

>The answer is 1. The reason is as follows:

>The transceiver is solid state and thus generates the most harmonics
>due to non- linear characteristics (this applies to all amplifiers).
>So if the the filter is between the rig and amp the harmonics from
>the rig will be attenuated and thus not have any chance to be
>amplified by the amp.

I don't think it is necessarily true that solid-state -> higher harmonics.

Regardless of this, though, modern transceivers have a bank of
low-pass filters that are switched into the output line dependent on
operating frequency. These filters assure that the transceiver
exceeds Part 97 requirements over the entire spectrum.

>The second reason is (assuming a tube amp) that the amplifier
>basically has a matching network on both the input and output of the
>amplifier, what you are doing when you tune the amplifier is matching
>the output impedance of the tubes (the amplifier) to the antenna (50
>ohms). Since this tuning process has a small operating range (also
>known as bandwidth) the harmonics never make it out of the amplifier.

Well, imperfect components rear their ugly heads. The tuning networks
you describe are made out of solenoidal coils and wire-connected
capacitors that become something else at VHF. These components don't
supply the rejection you might think they do up there at the 23rd
harmonic. And he *was* asking about a TVI filter. Those are designed
with a 41 MHz corner, at least an 80 dB/decade roll-off, and shielded
compartments between sections.

However, in this era of zero-bias triodes, most amplifiers run class
B (linear), even for CW. So the prime culprit in amateur-caused
TVI cases, the over-driven, class-C operated, plate-modulated final
tube sitting on a breadboard has, thankfully, faded into history.

<hamilton.773032986@BIX.com>news.d
Subject : Re: Temp. Conversion Chart: F & C?

hamilton@BIX.com (hamilton on BIX) writes:

>While we're on the topic of conversions, can someone help me
>out with some others that have been really boggling me?

> MHz to KHz
> Feet to Inches
> Dollars to Cents

>Also, what is that stuff that collects in your belly button
>called?

While we're on the subject, how about:

MHz to Megacycles
Feet to Hands
Dollars to Sense

And that stuff in your belly button - please send it to me. I'm
making a sweater.

By the way, there is a program on most unix systems called "units"
that will convert from one thing to another. I don't know what it
will do to belly-button lint, though.

--

Dave Bushong, Wang Laboratories, Inc.

End of Info-Hams Digest V94 #731
